

**UNITED STATES DISTRICT COURT  
DISTRICT OF MAINE**

ED FRIEDMAN, )  
Plaintiff, )  
v. )  
CENTRAL MAINE POWER COMPANY, )  
Defendant )  
2:20-cv-00237-JDL

**DEFENDANT'S MOTION TO LIMIT THE  
OPINION TESTIMONY OF ERIK ANDERSON**

The Defendant Central Maine Power Company (“CMP”) moves to limit the opinion testimony of Plaintiff’s proffered expert, Erik Anderson. Mr. Anderson is an electrical engineer. Some of his testimony is, and will be, uncontroversial as a matter of electrical science. With respect to certain matters, however, Anderson offers opinions that have no factual basis in the record of this case, and therefore are unreliable. Accordingly, they are inadmissible under the authority of *Daubert v. Merrell Dow Pharmaceuticals, Inc.* 509 U.S. 579 (1993).

Furthermore, two key opinions offered by Anderson should be excluded because, although the electrical phenomena he describes are real, they are not linked to the risk of future harm alleged by this Plaintiff. Thus, the admission of those opinions would not assist the Court to “understand the evidence or . . . determine a fact in issue,” as required by Fed. R. Evid. 702(a) and *Daubert*.

## MEMORANDUM OF LAW

## A. The Daubert Standard

In applying *Daubert*, federal trial judges called upon to apply Rule 702 are “require[d] . . . to evaluate an expert's proposed testimony for both reliability and relevance prior to admitting it.” *Ruiz-Troche v. Pepsi Cola of Puerto Rico Bottling Co.*, 161 F.3d 77, 80 (1st Cir. 1998) (citing

*Daubert*, 509 U.S. at 589-95). To be admissible, an expert's opinions must be "based on sufficient facts or data," and the witness must have "applied [reliable] principles and methods to the facts of the case." Fed. R. Civ. P. 702 (b)-(d).

"Along with the reliability requirement, the *Daubert* Court imposed a special relevancy requirement." *Ruiz-Troche v. Pepsi Cola of Puerto Rico Bottling Co.*, 161 F.3d at 81.

To be admissible, expert testimony must be relevant not only in the sense that all evidence must be relevant, *see Fed.R.Evid. 402*, but also in the incremental sense that the expert's proposed opinion, if admitted, likely would assist the trier of fact to understand or determine a fact in issue. In other words, Rule 702, as visualized through the *Daubert* prism, "requires a valid scientific connection to the pertinent inquiry as a precondition to admissibility."

*Id.* This has come to be described as a "fit" requirement. *Id.*

## **B. The Anderson Report**

Anderson authored a "Professional Engineering Report" dated December 3, 2021 (hereinafter "the Anderson Report"). The report is appended to the transcript of Anderson's deposition as Anderson Deposition Exhibit 2. The Anderson Deposition transcript, together with Deposition Exhibits 1, 2, and 6, is attached to this motion as Exhibit A.<sup>1</sup>

The Anderson Report sets forth six opinions. As relevant here, they include the following:

1. The [smart meters] used by CMP create RF electromagnetic fields/waves through their switch mode power supply's ("SMPS") and while transmitting a signal.  
....
3. The RF electromagnetic fields/waves produced by the electric smart meters used by CMP are not attenuated as they travel throughout the electrical distribution network of the residence the meter is controlling.

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<sup>1</sup> To avoid overburdening the Court, we have omitted from this filing the other exhibits marked for identification during the Anderson deposition, because they are not discussed in this motion and they are not directly relevant to the grounds for CMP's challenge to the admissibility of Anderson's testimony.

Later, in the “Analysis/Discussion” section of the report, Anderson both elaborates on these opinions and makes additional factual assertions.

With respect to his first opinion – that when alternating current enters a residential electrical system and is converted (by the switch mode power supply) to direct current, RF fields are created – Anderson explains that this conversion results in RF “spikes” or “noise,” thereby “distort[ing] power quality.” Anderson Report at 5. He says this phenomenon “can . . . be described as ‘dirty’ electrical power or ‘dirty’ electricity.” Id.

In support of his third opinion – that “RF electromagnetic fields/waves produced by the electric smart meters used by CMP are not attenuated as they travel throughout the electrical distribution network of the residence the meter is controlling” – Anderson cites testing performed by a company called Isotope Wireless, which shows that household electrical wiring “conduct[s] substantial levels of the RF emissions . . . and this frequency [is] then radiated from outlets (electrical power delivery points) and along the house wiring (branch circuitry).” Anderson Report at 4-5.

Finally, Anderson asserts in the “Analysis/Discussion” section of his report that “[f]rom [his] experience and testing done by others, these meters transmit more times than the electric companies report”; and, as a result of the conduction of RF frequencies along a household wiring system, “the wiring within the home becomes a whole house antenna for the RF noise.” Anderson Report at 4-5.

### **C. The role of Anderson’s proposed testimony.**

The question presented by this case is whether CMP’s installation of a smart meter on the property of the Plaintiff, Ed Friedman, would expose Friedman to radiofrequency (RF) fields intense enough to create a “risk to his health” that is both “unique” to him, because of the rare

blood cancer with which he is afflicted, and “significant enough to deprive him of ‘full and equal access’ to CMP’s services.” ECF 26 at 7-8. Anderson himself has no opinions to offer directly on that score. He has no medical training, has never testified in support of the position that smart meters are hazardous to human health, Anderson Depo. at 9:22-10:3, and has not been designated in this case to testify about the health effects of smart meters. His testimony, therefore, is offered solely to lay a foundation for the opinions of other witnesses. He will describe how, and with what intensity, smart meters produce radiofrequency fields. It is the task of others to explain how they think those RF fields will create the health risk alleged by the Plaintiff.

It logically follows, then, that Anderson’s testimony is relevant only insofar as it describes electrical phenomena that other witnesses will characterize as harmful. Only to that extent will his testimony possess “a valid scientific connection to the pertinent inquiry.” *Ruiz-Troche v. Pepsi Cola of Puerto Rico Bottling Co.*, 161 F.3d 77, 81 (1<sup>st</sup> Cir. 1998).

**D. Because there is no evidence that the creation of electrical transients or “noise” would risk worsening the Plaintiff’s cancer, Anderson’s testimony about the phenomenon will not assist the trier of fact to determine a fact in issue.**

Anderson uses the terms “electrical transients” and “noise” to describe the electrical activity that occurs when current is converted from alternating to direct current. He recognizes that the same phenomenon is sometimes called “dirty electricity,” but acknowledges that the term is not a technical one. Anderson Depo. at 64:7-14. He has no basis for believing that “dirty electricity” is hazardous to human health. Anderson Depo. at 65:15-18. That term, like the term “noise,” is used simply to describe the fact that under certain conditions, the natural, “clean” 60-hertz sine wave is “distorted” by higher frequency “spikes.” Anderson Depo. at 64:20-65:12.

The Plaintiff has made plain his intention to argue that these radiofrequency “spikes” are somehow harmful to humans. Most recently, he has moved to exclude the testimony of a defense

expert, Dr. Robert Gale, on the ground that Gale had “not expressed any opinion regarding ‘spiking’ in radiofrequency radiation, which is one basis Plaintiff (and Plaintiff’s experts) has identified as a cause of worsening cancer symptoms.” ECF 91 at 5 As CMP explained in its opposition to that motion, however, there is no reliable, admissible expert testimony in this case supporting the Plaintiff’s theory that the “spiking” of RF energy does cause harm. ECF 92 at 13. Because Dr. David Carpenter, the expert designated to advance the theory at trial, admits that (1) the theory has never been proven, (2) he doesn’t know how it *could* be proven, and (3) he does not know of a “good explanation” for *why* such a relationship might exist, Carpenter Depo. (Exhibit B) at 87:17-88:11 & 89:22-90:2, CMP fully expects that he will be precluded from testifying at trial that the “spiking” of RF signal somehow contributes to the risk that the Plaintiff’s cancer will worsen. *See Piepes v. NAI Ent. Holdings LLC*, 394 F. Supp. 3d 315, 318 (E.D.N.Y. 2019) (where “an expert . . . reaches a conclusion but provides no explanation for it,” he “gives the Court no insight into the reasons for his opinion or the means used to reach it,” making it “impossible for a Court to conduct a *Daubert* inquiry”). Without Carpenter’s testimony linking RF “spikes” to the Plaintiff’s health, Anderson’s testimony describing the phenomenon will not assist the Court to determine a fact in issue. Fed. R. Evid. 702.

**E. Because there is no evidence that RF emissions conducted through a home’s wiring system would risk worsening the Plaintiff’s cancer, Anderson’s testimony about the phenomenon will not assist the trier of fact to determine a fact in issue.**

For the same reason, Anderson’s testimony on the topic of “conducted emissions” should be excluded. As he did with reference to the phenomenon of RF “spiking,” the Plaintiff’s medical expert, Dr. Carpenter, admits that he has no idea what conducted emissions are, or whether they pose a risk to human health.

In deposition, when Carpenter was asked to explain the significance of conducted emissions, he could not. First, he candidly acknowledged that he does not understand how electricity propagates through a household wiring system:

A. Well, what I'm trying to explain there, and again I am not an electrical engineer but the -- there -- the engineers do make statements that say that you get radiofrequency emissions from power lines. You get dirty electricity on all of these different kinds of things and that the -- obviously, the electromagnetic fields go through the air, but they can be conducted into the wiring of the house and that can increase the exposure of dirty electricity because of the building wiring, which acts as an antennae. Again, **I shouldn't pretend that I really understand that all that well**, but that's why I do have a reference for that because this is the kind of statements that are made by the engineers that do understand how household wiring and whether a house is made of metal or brick or wood influences the lower-frequency emissions that you get.

Q. You mean lower -- do you mean lower-intensity emissions or lower frequencies?

A. Well, this is -- both RF and lower-frequency emissions that affect the quality of the signal. I'm not explaining that very well because **I don't understand it very well**.

Carpenter Depo. at 105:8- 106:17 (emphasis added).

Dr. Carpenter further admits that he has no clue whether the conduction of RF emissions through the wiring in the Plaintiff's house would "have any impact whatsoever" on him, Carpenter Depo. at 107:13-19. Because Dr. Carpenter admits he does not understand the science associated with conducted emissions, or whether conducted emissions have any health impact at all, any testimony the Plaintiff proposes to offer about that phenomenon would not assist the trier of fact to understand or determine a fact in issue. And, again, because there will be no testimony (by Carpenter or anyone else) linking conducted emissions to Ed Friedman's health, Anderson's testimony, which would serve only to describe the phenomenon as a technical matter, is completely irrelevant.

**F. Anderson's opinion that smart meters "transmit more times than the electric companies report" is inadmissible because it is not based on sufficient facts or data.**

Finally, the Court should exclude any testimony by Anderson suggesting that CMP smart meters "transmit more times than [CMP] report[s]." According to the Anderson Report, the assertion that electric utilities falsely report the performance of smart meters – an accusation Anderson clearly intends to use to tar CMP – is based in part on his personal "experience" and in part on "testing done by others." But neither Anderson's "personal experience" nor the "testing done by others" constitute facts or data "sufficient" to support his claim, and this alleged anecdotal evidence did not involve any experience or testing associated with CMP's smart meters.

1. The "personal experience" that Anderson says supports his claim.

When asked at deposition to describe his own personal "experience," Anderson testified that it consisted of "testing [he] did in regards to [an] Arizona case." Anderson Depo. at 48:20-49:2. Anderson explained that in connection with that case, where he had testified on behalf of a person who opposed the implementation of a smart meter system, Anderson Depo. at 5:21-6:17, he tested a single smart meter by connecting it to a "test stand setup" at a colleague's house and "measur[ing] the voltage waveforms coming off of it." Anderson Depo. at 14:13-15:6. According to Anderson, the testing showed that "there was additive transients generated by the smart meter with its power supply." Anderson Depo. at 15:10-15.

Anderson cannot rely on the testing he personally performed because he has not preserved or made available any record of it. Although Anderson contends that the testing he carried out in Arizona supports his opinions in this case, Anderson Depo. at 17:10-22, and although the notice of his deposition directed him to produce "all documents, including, but not limited to, any reports prepared or created by you in regard to this case," Anderson Depo. Exhibit 1, he did not produce

any records of the Arizona testing. Anderson Depo. at 16:16-19. Furthermore, although Anderson filed written testimony in the Arizona case, Anderson Depo. Exhibit 6, he acknowledges that his testimony included no suggestion that smart meters transmit more often than electric companies report. Anderson Depo. at 49:7-25.

2. The “testing done by others” that Anderson says supports his claim.

Anderson was then asked to describe the “testing done by others.” Anderson Depo. at 52:15-20. He answered:

A I believe that was given in some of the reports that I had read in regards to this assumption. I don't know specifically which one they are right now, but I do recall reading it.

Q You -- you recall reading that in connection with the Arizona case?

A I don't know that I did necessarily with the Arizona case, but with the Children's Health . . . Defense [case].

Anderson Depo. at 52:21-53:6. No report or other description of that testing, or the results of it, has ever been produced.

3. Anderson cannot base scientifically-valid opinions on data he has not made available for analysis or comparison.

Given the limited – essentially non-existent – data Anderson has supplied to support his opinion, he should not be permitted to testify that smart meters generally “transmit more times than the electric companies report.” Even more clearly, he must not be allowed to assert or imply that CMP’s smart meters “transmit more times than [CMP] report[s].”

Insofar as the Anderson Report reveals, he has never tested a CMP meter in operation within the existing AMI mesh network. He cannot, therefore, assert as a fact that a CMP meter transmits more frequently than the company says it does. That would be pure speculation. And although Anderson says he has tested a similar meter, he has produced no records of the test *he*

performed. Finally, although Anderson says he has read somewhere, in connection with another lawsuit, that someone else claims to have performed testing that supports his assertion, he has not provided the evidence of *their* testing either.

It is the Plaintiff's burden to demonstrate the reliability of Anderson's testimony. “[T]o satisfy *Daubert*'s objective, the proponent must show ‘that the expert's conclusion has been arrived at in a scientifically sound and methodologically reliable fashion.’” *Lawes v. CSA Architects & Engineers LLP*, 963 F.3d 72, 99 (1st Cir. 2020) (citations omitted). “This requires some objective, independent validation of the expert's methodology. The expert's assurances that he has utilized generally accepted scientific methodology is insufficient.” *Moore v. Ashland Chem. Inc.*, 151 F.3d 269, 276 (5th Cir. 1998). In order to objectively, independently validate an expert's opinion, the opposing litigant must be provided with the evidence that forms its factual foundation. Here, CMP cannot test, validate, or otherwise evaluate Anderson's opinion, because neither Anderson nor Friedman has ever shared the data Anderson says he relied on.

## **CONCLUSION**

For the foregoing reasons CMP respectfully requests that the Court issue an Order limiting the opinion testimony by Erik Anderson, as delineated above, at trial. Specifically, CMP requests that the Court issue an Order barring Anderson from:

1. Testifying about the phenomenon of electrical transients or “dirty electricity,” or suggesting that the phenomenon poses a risk to human health;
2. Testifying about the phenomenon of conducted emissions, or suggesting that the phenomenon poses a risk to human health; and
3. Testifying that CMP smart meters “transmit more times than [CMP] report[s].”

Dated at Portland, Maine this 31<sup>st</sup> day of May, 2023.

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**Certificate of Service**

I hereby certify that on May 31, 2023, I electronically filed the Defendant's Motion to Limit the Opinion Testimony of Erik Anderson with the Clerk of Court using the CM/ECF system which will send notification of such filing to all counsel of record.

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